

SP-R11 Recreation and Public Use Impact Assessment

January 10, 2002

1.0 Introduction/Background

This study will analyze recreation and public use impacts to vegetation, cultural resources, soils, and water quality in the Study Area vicinity. Other recreation and public use impact assessment studies will be reviewed and used as a basis for this study.

2.0 Study Objective

The objective of this study is to assess recreation and public use impacts to vegetation, soils, and water quality to Study Area lands and waters. These resources are particularly important to the recreation, fisheries, and visual quality of the Study Area.

Topics to address related to potential recreation impacts within the Study Area include:

- Soil erosion and soil compaction, especially within and adjacent to campgrounds, trails, and day use areas (DUAs)
- Impacts to wetlands and riparian vegetation from visitor use
- Erosional impacts associated with trail maintenance and fuel load management activities
- Shoreline erosion from boat wakes and/or wind waves
- Fugitive dust emissions from unpaved roadways and parking areas
- Lack of downed wood in high use areas due to wood collection for fire fuel/fuel load reductions
- Impacts to vegetation due to off-road vehicle (ORV) use and pedestrian use
- Water quality impacts due to soil erosion and sanitation problems at or near campgrounds and day use areas
- Water quality impacts due to personal watercraft (PWC) use and motorized boating
- Litter in recreation areas
- Sanitation issues in recreation areas
- Cultural resources

To the extent possible, standardized criteria on impacts will be employed. This study will be done in conjunction with SP-R10—Recreation Facility and Condition Inventory, and SP-W340 Recreation Facilities and Operations Effects on Water Quality~~Cumulative Effects on Water Quality~~.

3.0 Relationship to Relicensing/Need for the Study

This study is needed because Federal Energy Regulatory Commission (FERC) regulations require a comprehensive recreation plan. The purpose of the study is to compile and analyze field data collected in the Study Area related to ecological impacts at developed recreation sites and undeveloped dispersed recreation sites. This analysis is qualitative and does not address detailed water quality and detailed erosion conditions of the shorelines which are being studied by the Environmental Work Group.

This study addresses Issue Statement R1—adequacy of existing project recreation facilities, opportunities, and access to accommodate current use and future demand and R4—adequacy of operations and maintenance and clean-up activities associated with existing and new recreation areas to provide a quality recreation experience. They specifically address Issues RE 1, 2, 5-39, 53, 55, 56, 60, 61, 64-83, 85, 87-89, 95, 96, 104, 105, [118-130, 132-145, 147, 150, and 151](#).

4.0 Study Area

The Study Area includes Lake Oroville, the lands and waters within and adjacent to (1/4 mile) the FERC project boundary, and adjacent land, facilities, and areas with a clear project nexus. The following developed recreation areas and sites are part of the Study Area:

Impacts will also be assessed for dispersed (undeveloped) lakeside (Lake Oroville, Thermolito Forebay, and Thermolito Afterbay) recreation sites. This will also include trails on or near these shorelines. The water conveyance system (pipelines, penstocks, canals, flumes, etc.) corridors will not be investigated as part of this study.

Campgrounds

Bidwell Canyon Campground	Floating Campsites
Bloomer Cove Boat-In Campsite (BIC)	Lime Saddle Campground
Bloomer Knoll BIC	Lime Saddle Group Campground
Bloomer Point BIC	Loafer Creek Campground
Bloomer Group BIC	Loafer Creek Group Campground
Craig Saddle BIC	Loafer Creek Horse Campground
Foreman Creek BIC	Oroville Wildlife Area (OWA) (Larkin Road Camping Area)
Goat Ranch BIC	Thermalito North Forebay RV “en route” Campground

Day Use Areas (DUAs)

Lake Oroville Visitor Center	Saddle Dam DUA
Lime Saddle DUA	Thermalito North Forebay DUA
Bidwell Canyon DUA	Thermalito South Forebay DUA
Loafer Creek DUA	Thermalito Afterbay DUA (off Highway 162)
Oroville Dam Overlook Area	Thermalito Afterbay Wilbur Road DUA
Spillway DUA	Thermalito Afterbay Larkin Road DUA
	Thermalito Afterbay outlet
	Burma Road and Lakeland Boulevard Diversion Pool DUAs

Boat Launches

Lime Saddle Boat Launch Area (BLA)	Foreman Creek Car-Top BLR
Loafer Creek BLA	Dark Canyon Car-Top BLR
Bidwell Canyon BLA	Stringtown Car-Top BLR

Enterprise Boat Launch Ramp (BLR)	Vinton Gulch Car-Top BLR
Nelson Bar Car-Top BLR	<u>Thermalito Afterbay</u>
<u>Thermalito South Forebay</u>	<u>Thermalito North Forebay</u>
<u>Diversion Pool-Burma Road and RR Grade</u>	

Other Recreational Facilities with Project Nexus

Floating Restrooms	Aquatic Center
Brad P. Freeman Bicycle Trail	Fish Hatchery
<u>Lake Oroville State Recreation Area (LOSRA) Hiking/Equestrian Trail</u>	Clay Pit State Vehicular Recreation Area (SVRA)
	<u>Shooting Range</u>
	Model Aircraft Flying Area
Diverson Pool	<u>OWA</u>
<u>Dispersed use areas along the upper and lower reaches of the Feather River</u>	

5.0 General Approach

Detailed Methodology and Analysis Procedures

This study will provide a qualitative assessment of recreational impacts in the Study Area. It will focus on developing a good overall assessment of public use recreation-related impacts in and adjacent to Study Area recreation sites. The results of this study will provide a baseline of information for future long-term monitoring of public recreational impacts. Data from this study will also be used to assess the conditions of recreation sites and use areas presented in SP-R10.

Task 1—Develop Site Impact Assessment Forms

Impact assessment forms will be developed in this task. A sample form is included in Attachment A.

Task 2—Conduct Field Work and Site Mapping and Photography

EDAW will solicit input from the California Departments of Water Resources (DWR) and Parks and Recreation (DPR), the United States Forest Service (USFS), and staff to identify areas for field observations. Researchers will then drive and walk through the study area looking for recreation-related impacts. For each site where recreational impacts have been identified, the following field data will be collected:

- Site photography of significant impact areas; and
- Site locator identification in GIS including the type of site.

The impact forms developed in Task 1 will be filled out as part of Task 2 activities. To assess the recreational impacts, each site will be visited and potential impacts will be identified, primarily in a qualitative fashion. Beach erosion and boat wake impacts will be assessed via a pedestrian survey of shorelines where soil erosion is prevalent. Specific impacts that will be identified, if present, include impacts originating from vehicular and foot traffic; illegal dumping of waste; littering; illegal wood cutting; vegetation removal; motorcycle/OHV use; vandalism; illegal campfires; gate lock cutting; grazing; and squatters/dispersed camping.

Task 3—Draft Final Report Preparation

The results of Tasks 1 and 2 will be presented in a Draft Final Report. The report will include detailed inventory tables of public use impacts observed by site, plus text descriptions of sites and impacts, site photography of significant sites or impacts, and GIS mapping of dispersed sites and significant impact areas, if any.

6.0 Results and Products/Deliverables

Results

The results of this study will focus on ecological impacts at developed and undeveloped recreation facilities in the Study Area. Ecological impacts (erosion, vegetation damage, litter, etc.) at public developed and dispersed undeveloped recreation sites within the Study Area will be discussed and listed in a table. In addition to developing an assessment of current conditions as a result of recreation and public open space use, the results of this study also will provide baseline information for future long-term monitoring of public recreational impacts.

Products/Deliverables

The following product will be developed for this study:

- Draft Final Report

The Draft Final Report will summarize the recreational impacts by site, will include photography of significant sites, and GIS maps of dispersed sites and significant impact areas. It will contain an executive summary; an introduction including goals and objectives; methods; results; and a discussion including implications for current recreation management and preliminary areas of suitability for future recreation development.

7.0 Coordination and Implementation Strategy

Coordination with Other Resource Areas/Studies

This study, where applicable, will provide data for portions of SP-R10—Recreational Facility and Condition Inventory. The fieldwork included in this task will also be conducted in conjunction with SP-R10. GIS-based mapping will be needed. Coordination will also have to occur with the various resource studies (e.g., botanical mapping, Threatened and Endangered Species (TES) mapping, water quality study) that are being led by the Environmental Work Group, [in particular SP-W310, Cumulative Effects on Water Quality Recreation Facilities and Operations Effects on Water Quality](#). There will also have to be coordination with the studies led by the Land Use, Land Management, and Aesthetics Work Group, as well as studies led by the Cultural Resources Work Group.

Issues, Concerns, Comments Tracking/Compliance Requirements

This study addresses Issue Statement R1—adequacy of existing project recreation facilities, opportunities, and access to accommodate current use and future demand and R4—adequacy of operations and maintenance and clean-up activities associated with existing and new recreation areas to provide a quality recreational experience. It specifically addresses Issues RE 1, 2, 5-39, 53, 55, 56, 60, 61, 64-83, 85, 87-89, 95, 96, 104, 105, [118-130, 132-145, 147, 150, and 151](#).

8.0 Study Schedule

Data collection: April through June 2002.

Data analysis and report writing: July 2002.

Draft Final Report due: August 2002.

Attachment A
Sample Impact Assessment Form

PROJECT: _____

SITE NAME: _____

DATE: _____

LAND OWNERSHIP: _____ RESEARCHER: _____ ROLL: _____ PHOTO: _____

INDICATORS	NOTES
General Site Description	
Built Features	
Bare Ground and Compaction	
Litter and Debris	
Sanitation Problems	
Erosion	
Vegetation Damage	
Proximity to Wetlands	
Proximity to Riparian	
<u>Human</u> Man -made Disturbances	
<u>Cultural Resources Sites</u>	

<u>Air Quality/Fugitive dust</u>	
Other	